

Appln. No. 10/760,035
Filing Date: January 16, 2004
Supp. Prel. Amdt. dated May 15, 2006

AMENDMENTS TO THE CLAIMS

Listing of Claims:

Claims 1-21 (Canceled).

Claim 22. (Previously Presented) A portable terminal device for supporting voice communication via a wireless packet network, the device comprising:

a microphone for transducing sound into a first analog voice stream;

at least one converter for converting the first analog voice stream to produce digital voice packets;

a transmitter for transmitting via the wireless packet network the digital voice packets from the at least one converter;

a receiver for receiving digital voice packets from the wireless packet network;

the at least one converter for converting received digital voice packets to a second analog voice stream; and

a transducer for transducing the second analog voice stream into sound.

Claim 23. (Previously Presented) The device of claim 22 wherein the wireless packet network uses an Internet protocol (IP).

Claim 24. (Previously Presented) The device of claim 23 wherein the Internet protocol is the transmission control protocol (TCP)/Internet protocol (IP) protocol.

Claim 25. (Previously Presented) The device of claim 22 wherein the wireless packet network communicates at a frequency of approximately 2.4 gigahertz.

Claim 26. (Previously Presented) The device of claim 22 wherein the wireless packet network communicates using a frequency hopping spread spectrum technique.

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Claim 27. (Previously Presented) The device of claim 22 wherein the wireless packet network communicates using a direct sequence spread spectrum technique.

Claim 28. (Previously Presented) The device of claim 22 wherein the at least one converter comprises:

an analog to digital converter for converting the first analog voice stream to digital voice data; and

a packetizer for assembling the digital voice data to produce digital voice packets.

Claim 29. (Previously Presented) The device of claim 22 wherein the at least one converter comprises:

a depacketizer for extracting digital voice data from received digital voice packets; and

a digital to analog converter for converting the extracted digital voice data to produce the second analog voice stream.

Claim 30. (Previously Presented) A circuit for supporting voice communication via a wireless packet network, the circuit comprising:

at least one converter for converting a first analog voice stream to produce digital voice packets;

a transmitter for transmitting via the wireless packet network the digital voice packets from the at least one converter;

a receiver for receiving digital voice packets from the wireless packet network; and

the at least one converter for converting received digital voice packets to a second analog voice stream.

Claim 31. (Previously Presented) The device of claim 30 wherein the wireless packet network communicates at a frequency of approximately 2.4 gigahertz.

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Claim 32. (Previously Presented) The device of claim 30 wherein the wireless packet network communicates using an Internet protocol.

Claim 33. (Previously Presented) The device of claim 30 wherein the Internet protocol is the transmission control protocol (TCP)/Internet protocol (IP).

Claim 34. (Previously Presented) The device of claim 30 further comprising:
a microphone for transducing sound into the first analog voice stream.

Claim 36. (Previously Presented) The device of claim 30 further comprising:
a transducer for converting the second analog voice stream into sound.

Claim 37. (Previously Presented) The device of claim 30 further comprising:
a keypad for receiving user input.

Claim 38. (Previously Presented) The device of claim 30 further comprising:
a display device to provide visual feedback to a user.

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Claim 39. (Previously Presented) An access point device for supporting voice communication via a wireless packet network, the device comprising:

- a receiver for receiving digital voice packets from the wireless packet network;
- at least one converter for converting the received digital voice packets to produce a first voice stream;
- a first interface for transmitting the first voice stream via a telephone network, and for receiving from the telephone network a second voice stream;
- the at least one converter for converting the second voice stream to digital voice packets for transmission via the wireless packet network; and
- a transmitter for transmitting the digital voice packets from the at least one converter.

Claim 40. (Previously Presented) The device of claim 39 wherein the wireless packet network communicates at a frequency of approximately 2.4 gigahertz.

Claim 41. (Previously Presented) The device of claim 39 wherein the wireless packet network communicates using a frequency hopping spread spectrum technique.

Claim 42. (Previously Presented) The device of claim 39 wherein the wireless packet network communicates using a direct sequence spread spectrum technique.

Claim 43. (Previously Presented) The device of claim 39 wherein the wireless packet network communicates using an Internet protocol (IP).

Claim 44. (Previously Presented) The device of claim 43 wherein the Internet protocol is the transmission control protocol (TCP)/Internet protocol (IP).

Claim 45. (Previously Presented) The device of claim 39 wherein the telephone network is a conventional switched telephone network.

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Claim 46. (Previously Presented) The device of claim 39 wherein the device performs call setup based upon information received via the wireless packet network.

Claim 47. (Previously Presented) The device of claim 39 wherein the device communicates via the wireless packet network information related to call signaling received from the telephone network.

Claim 48. (Previously Presented) The device of claim 39 further comprising:
a second interface for communicating via a wired packet network digital voice packets from the wireless packet network, and for communicating via the wireless packet network digital voice packets from the wired packet network.

Claim 49. (Previously Presented) The device of claim 48 wherein the device selects communication via one of the first interface and the second interface based upon information received via the wireless packet network.

Claim 50. (Previously Presented) The device of claim 48 wherein the wired packet network is an Ethernet compatible network.

Claim 51. (Previously Presented) The device of claim 39 wherein the at least one converter comprises:
an analog to digital converter for converting the first analog voice stream to digital voice data; and
a packetizer for assembling digital voice data to produce digital voice packets.

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Claim 52. (Previously Presented) The device of claim 39 wherein the at least one converter comprises:

a depacketizer for extracting digital voice data from received digital voice packets; and
a digital to analog converter for converting the extracted digital voice data to produce the second analog voice stream.

Claim 53. (Previously Presented) The device of claim 39 wherein the first voice stream and the second voice stream are digital representations of voice information.

Claim 54. (Previously Presented) A method of operating a portable terminal device for supporting voice communication via a wireless packet network, the method comprising:

receiving digital voice packets via the wireless packet network;
converting the received digital voice packets to a first analog voice stream;
transducing the first analog voice stream to produce sound;
converting sound to a second analog voice stream;
converting the second analog voice stream to digital voice packets; and
sending via the wireless packet network the digital voice packets converted from the second analog voice stream.

Claim 55. (Previously Presented) The method of claim 54 wherein the wireless packet network communicates at a frequency of approximately 2.4 gigahertz.

Claim 56. (Previously Presented) The method of claim 54 wherein the wireless packet network communicates using a frequency hopping spread spectrum technique.

Claim 57. (Previously Presented) The method of claim 54 wherein the wireless packet network communicates using a direct sequence spread spectrum technique.

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Claim 58. (Previously Presented) The method of claim 54 wherein the wireless packet network communicates using an Internet protocol.

Claim 59. (Previously Presented) The method of claim 58 wherein the Internet protocol is the transmission control protocol (TCP)/Internet protocol (IP).

Claim 60. (Previously Presented) A method of operating an access point device for supporting voice communication via a wireless packet network, the method comprising:
receiving digital voice packets via the wireless packet network;
converting digital voice packets from the wireless packet network to a first voice stream;
transmitting the first voice stream via a telephone network;
receiving a second voice stream via the telephone network;
converting the second voice stream to digital voice packets; and
sending via the wireless packet network the digital voice packets converted from the second voice stream.

Claim 61. (Previously Presented) The method of claim 60 wherein the wireless packet network communicates at a frequency of approximately 2.4 gigahertz.

Claim 62. (Previously Presented) The method of claim 60 wherein the wireless packet network communicates using a frequency hopping spread spectrum technique.

Claim 63. (Previously Presented) The method of claim 60 wherein the wireless packet network communicates using a direct sequence spread spectrum technique.

Claim 64. (Previously Presented) The method of claim 60 wherein the wireless packet network communicates using an Internet protocol.

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Claim 65. (Previously Presented) The method of claim 64 wherein the Internet protocol is transmission control protocol (TCP)/Internet protocol (IP).

Claim 66. (Previously Presented) The method of claim 60 wherein the telephone network is a conventional switched telephone network.

Claim 67. (Previously Presented) The method of claim 60 further comprising performing call setup based upon information received via the wireless packet network.

Claim 68. (Previously Presented) The method of claim 60 further comprising communicating information via the wireless packet network based upon signaling received from the telephone network.

Claim 69. (Previously Presented) The method of claim 60 wherein the first voice stream and the second voice stream are digital representations of voice information.

Claim 70. (Previously Presented) A method of operating an access point device for supporting voice communication via a wireless packet network, the method comprising:
receiving via the wireless packet network packets containing a first digital representation of a first voice stream;
sending a second digital representation of the first voice stream via a second network;
accepting from the second network a first digital representation of a second voice stream;
and
transmitting via the wireless packet network packets containing a second digital representation of the second voice stream.

Claim 71. (Previously Presented) The method of claim 70 wherein the second network is a wired packet network.

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Claim 72. (Previously Presented) The method of claim 70 wherein the wireless packet network communicates at a frequency of approximately 2.4 gigahertz.

Claim 73. (Previously Presented) The method of claim 70 wherein the wireless packet network communicates using a frequency hopping spread spectrum technique.

Claim 74. (Previously Presented) The method of claim 70 wherein the wireless packet network communicates using a direct sequence spread spectrum technique.

Claim 75. (Previously Presented) The method of claim 70 wherein the wireless packet network communicates using an Internet protocol.

Claim 76. (Previously Presented) The method of claim 75 wherein the Internet protocol is the transmission control protocol (TCP)/Internet protocol (IP).

Claim 77. (Previously Presented) The method of claim 70 wherein the first and second digital representations of the first voice stream are the same digital representation, and the first and second digital representations of the second voice stream are the same digital representations.